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DICTIONARY FILE UPDATES:    7 MAY 2003  HIGHEST RN 511677-22-8

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

  Please note that search-term pricing does apply when
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Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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FILE COVERS 1907 - 9 May 2003  VOL 138 ISS 20
FILE LAST UPDATED: 8 May 2003  (20030508/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=> d que l30
L1              STR
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KOROMA  EIC1700
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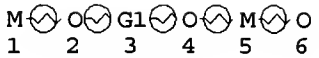
A @7



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NSPEC IS R AT 1
NSPEC IS R AT 2
NSPEC IS R AT 4
NSPEC IS R AT 5
NSPEC IS R AT 6
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L2 SCR 1918
L3 SCR 2006
L4 SCR 1989
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L7 SCR 1991
L8 SCR 1987
L9 SCR 1920
L10 SCR 1964
L11 SCR 1963
L12 SCR 2031
L13 SCR 2037
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L17 327 SEA FILE=CAPLUS ABB=ON PLU=ON L16
L18 2 SEA FILE=CAPLUS ABB=ON PLU=ON L17 AND (EL OR ELECTROLUMIN? OR LIGHT(3A)EMIT? OR LUMINI?)(5A)(DEVICE OR EQUIPMENT OR APPARATUS OR UNIT OR SYSTEM)
L19 3 SEA FILE=CAPLUS ABB=ON PLU=ON L17 AND (EL OR ELECTROLUMIN? OR LIGHT(3A)EMIT? OR ?LUMINI?)
L20 4 SEA FILE=CAPLUS ABB=ON PLU=ON L17 AND (EL OR ELECTROLUMIN? OR LIGHT(3A)EMIT? OR ?LUMINI? OR LIGHT)
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L22 2 SEA FILE=CAPLUS ABB=ON PLU=ON L17 AND PHOSPHORES?
L23 13 SEA FILE=CAPLUS ABB=ON PLU=ON (L18 OR L19 OR L20 OR L21 OR L22)
L24 20135 SEA FILE=CAPLUS ABB=ON PLU=ON L14
L25 1005 SEA FILE=CAPLUS ABB=ON PLU=ON L24(L)(EL OR ELECTROLUMIN? OR LIGHT(3A)EMIT? OR ?LUMINI? OR FLUORESC? OR PHOSPHO?)
L26 49 SEA FILE=CAPLUS ABB=ON PLU=ON L25 AND (CARBOXYLIC? OR

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                DICARBOXYLIC? OR CARBOXYLAT?)
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L28        16151 SEA FILE=CAPLUS ABB=ON  PLU=ON  L24 NOT ?PHOSPHO?
L29            9 SEA FILE=CAPLUS ABB=ON  PLU=ON  L28 AND L27
L30           22 SEA FILE=CAPLUS ABB=ON  PLU=ON  L29 OR L23


=> d ibib abs hitstr ind total l30

L30  ANSWER 1 OF 22  CAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         2002:979066  CAPLUS
DOCUMENT NUMBER:          138:197771
TITLE:                    Intramolecular Excimer Formation in a
                          Naphthalene-Appended Dinuclear Iron-Oxo Complex
AUTHOR(S):                Picraux, Laura B.; Weldon, Brandon T.; McCusker, James
                          K.
CORPORATE SOURCE:         Department of Chemistry, Michigan State University,
                          East Lansing, MI, 48824, USA
SOURCE:                   Inorganic Chemistry (2003), 42(2), 273-282
                          CODEN: INOCAJ; ISSN: 0020-1669
PUBLISHER:                American Chemical Society
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
OTHER SOURCE(S):          CASREACT 138:197771
AB    The synthesis, structure, and phys. properties of a Heisenberg
      exchange-coupled cluster contg. naphthalene groups
      [Fe2(O)(O2CCH2C10H7)2(TACN-Me3)2]2+ (3) (TACN-Me3 = 1,4,7-trimethyl-1,4,7-
      triazacyclononane) are described.  3 Crystallizes in space group P.hivin.1
      with a 12.94(2), b 14.84(2), c 15.23(2) .ANG., .alpha. 101.12(7), .beta.
      90.8(1), .gamma. 114.14(7).degree., and Z = 2 with R = 0.0425 and wR2 =
      0.1182.  Variable-temp. magnetic susceptibility data indicate that the two
      high-spin FeIII centers are antiferromagnetically coupled with J = -105
      cm-1 (H = -2JS1.cntdot.S2), which is typical for this class of compds.
      The room-temp. static emission spectrum of the compd. in deoxygenated MeCN
      soln. is centered near 335 nm and has features reminiscent of both
      Me-2-naphthylacetate (1) and [Zn2(OH)(O2CCH2C10H7)2(TACN-Me3)2]+ (2) with
      the following two caveats: 1 the overall emission intensity is roughly a
      factor of 10 less than that of the free ester (1, .PHI.r = 0.13) or the
      ZnII analog (2, .PHI.r = 0.14), and (2) there is significant broadening of
      the low-energy shoulder of the emission envelope.  Time-correlated single
      photon counting data revealed biphasic emission for 3 with .tau.1 = 4.6
      .+-. 1 ns and .tau.2 = 47 .+-. 1 ns.  The latter compares favorably with
      that found for 2 (.tau. = 47 .+-. 1 ns) and is assigned as the S0 .rarw.
      S1 fluorescence of naphthalene.  Emission anisotropy, time-gated emission
      spectra, and nanosecond time-resolved absorption measurements all support
      the assignment of the 4.6 ns component as being due to a singlet excimer
      that forms between the two naphthylacetate groups of 3, a process that is
      likely mediated by the structural constraints of the oxo-bis-
      carboxylato diiron core.  No direct evidence for intramol.
      electron and/or energy transfer from the photoexcited naphthyl group to
      the Fe-oxo core was obtained, suggesting that the short-lived excimer may
      contribute to circumventing such pathways in this type of system.
```

IT **498534-58-0P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure)
RN 498534-58-0 CAPLUS
CN Zinc(1+), .mu.-hydroxybis[.mu.-(2-naphthaleneacetato-
.kappa.O:.kappa.O')]bis(octahydro-1,4,7-trimethyl-1H-1,4,7-triazonine-
.kappa.N1,.kappa.N4,.kappa.N7)di-, perchlorate, compd. with methanol (1:1)
(9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1
CMF C H4 O

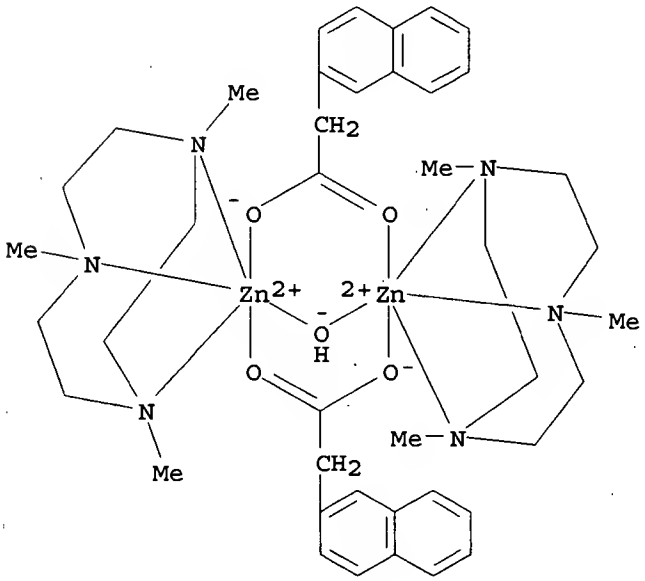
H_3C-OH

CM 2

CRN 498534-52-4
CMF C42 H61 N6 O5 Zn2 . Cl O4

CM 3

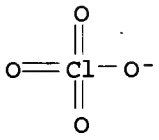
CRN 498534-51-3
CMF C42 H61 N6 O5 Zn2
CCI CCS



KOROMA EIC1700

CM 4

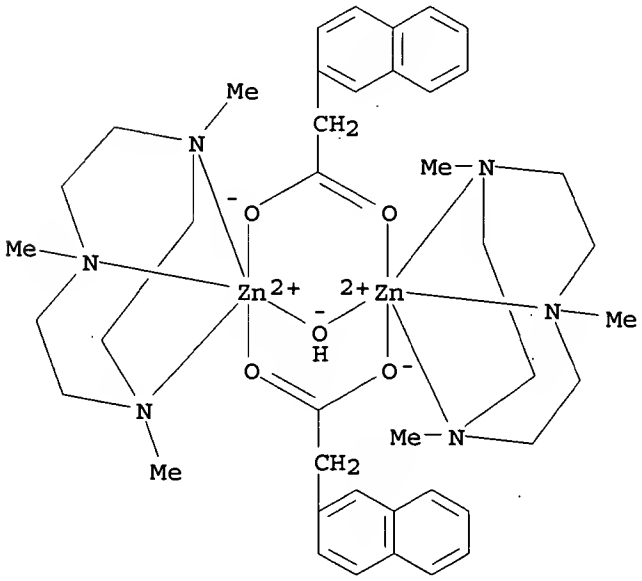
CRN 14797-73-0
CMF Cl O4



IT **498534-52-4P**
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(prepn., **fluorescence** spectra and cyclic voltammetry)
RN 498534-52-4 CAPLUS
CN Zinc(1+), .mu.-hydroxybis[.mu.-(2-naphthaleneacetato-.kappa.O:.kappa.O')]bis(octahydro-1,4,7-trimethyl-1H-1,4,7-triazonine-.kappa.N1,.kappa.N4,.kappa.N7)di-, perchlorate (9CI) (CA INDEX NAME)

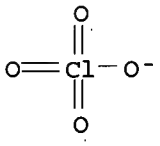
CM 1

CRN 498534-51-3
CMF C42 H61 N6 O5 Zn2
CCI CCS



CM 2

CRN 14797-73-0
CMF Cl O4



CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 72, 73, 75, 77

ST iron zinc methyltriazacyclononane naphthylacetato dinuclear prepn structure fluorescence electrochem; crystal structure iron zinc methyltriazacyclononane naphthylacetato dinuclear; cyclic voltammetry iron zinc methyltriazacyclononane naphthylacetato dinuclear methylnaphthylacetate; excimer formation iron methyltriazacyclononane naphthylacetato dinuclear; antiferromagnetic coupled iron 3 methyltriazacyclononane naphthylacetato dinuclear

IT Redox reaction
(electrochem.; of iron(III) naphthylacetate trimethyl-triazacyclononane dinuclear complex)

IT Antiferromagnetic exchange
(in iron(III) naphthylacetate trimethyl-triazacyclononane dinuclear complex)

IT Fluorescence decay
(kinetics; of Me naphthylacetate and iron(III) and zinc naphthylacetate trimethyl-triazacyclononane dinuclear complexes)

IT Fluorescence
Oxidation potential
Reduction potential
(of Me naphthylacetate and iron(III) and zinc naphthylacetate trimethyl-triazacyclononane dinuclear complexes)

IT Crystal structure
Molecular structure
(of iron(III) and zinc naphthylacetate trimethyl-triazacyclononane dinuclear complexes)

IT Excimer
(singlet; formation in fluorescence of iron(III) naphthylacetate trimethyl-triazacyclononane dinuclear complex)

IT 498534-56-8 498534-57-9
RL: CPS (Chemical process); FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); FORM (Formation, nonpreparative); PROC (Process)
(elec. potential of couple contg.)

IT 581-96-4, 2-Naphthylacetic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(for prepn. of Me naphthylacetate)

IT 110827-37-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(for prepn. of iron(III) naphthylacetate trimethyl-triazacyclononane dinuclear complex)
IT 96556-05-7, 1,4,7-Trimethyl-1,4,7-triazacyclononane
RL: RCT (Reactant); RACT (Reactant or reagent)
(for prepn. of zinc naphthylacetate trimethyl-triazacyclononane dinuclear complex)
IT **498534-58-0P** 498534-59-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure)
IT 498534-55-7P
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(prepn., crystal structure, magnetic susceptibility, fluorescence lifetime and electrochem. redox)
IT 2876-71-3P, Methyl 2-napthylacetate
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(prepn., fluorescence lifetime and cyclic voltammetry)
IT **498534-52-4P**
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(prepn., **fluorescence** spectra and cyclic voltammetry)
REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:531783 CAPLUS
DOCUMENT NUMBER: 137:225763
TITLE: An Exceptionally Stable Metal-Organic Framework Constructed from the Zn8(SiO4) Core
AUTHOR(S): Yang, S. Y.; Long, L. S.; Jiang, Y. B.; Huang, R. B.; Zheng, L. S.
CORPORATE SOURCE: State Key Laboratory for Physical Chemistry of Solid Surface Department of Chemistry, Xiamen University, Xiamen, 361005, Peop. Rep. China
SOURCE: Chemistry of Materials (2002), 14(8), 3229-3231
CODEN: CMATEX; ISSN: 0897-4756
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:225763
AB The hydrothermal synthesis, crystal structure, TGA and spectral properties of a metal-org. framework complex, [Zn8(SiO4)(C8H4O6)6]n (1, C8H4O6 = terephthalate dianion), are reported. 1 Contains an infinite interpenetrating three-dimensional framework with a Zn8(SiO4) distorted cubane-like core as a building unit. Two zinc atoms at each edge of the

core are capped by a carboxylate group of terephthalate to form a 6-connected cluster Zn8(SiO4)(C8H4O6)12. TGA shows that 1 has exceptional thermal and chem. stability. In the solid state 1 exhibits strong **fluorescence** and weak **phosphorescence**, suggesting it may be a good candidate for diode devices.

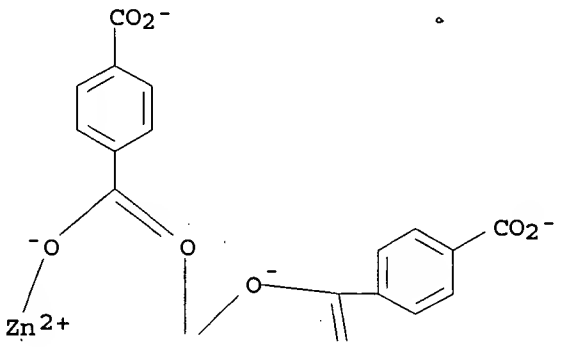
IT **455951-35-6P**

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (hydrothermal prepn., crystal and mol. structure and **fluorescence/phosphorescence** of exceptionally stable zinc silicate terephthalate ([Zn8(SiO4)(C8H4O6)6]n) metal-org. framework complex)

RN 455951-35-6 CAPLUS

CN Zinc, hexakis[.mu.-[1,4-benzenedicarboxylato(2-)-.kappa.O1:.kappa.O1']][.mu.8-[orthosilicato(4-)-.kappa.O:.kappa.O:.kappa.O':.kappa.O':.kappa.O'':.kappa.O'':.kappa.O''':.kappa.O''']]octa- (9CI) (CA INDEX NAME)

PAGE 1-A



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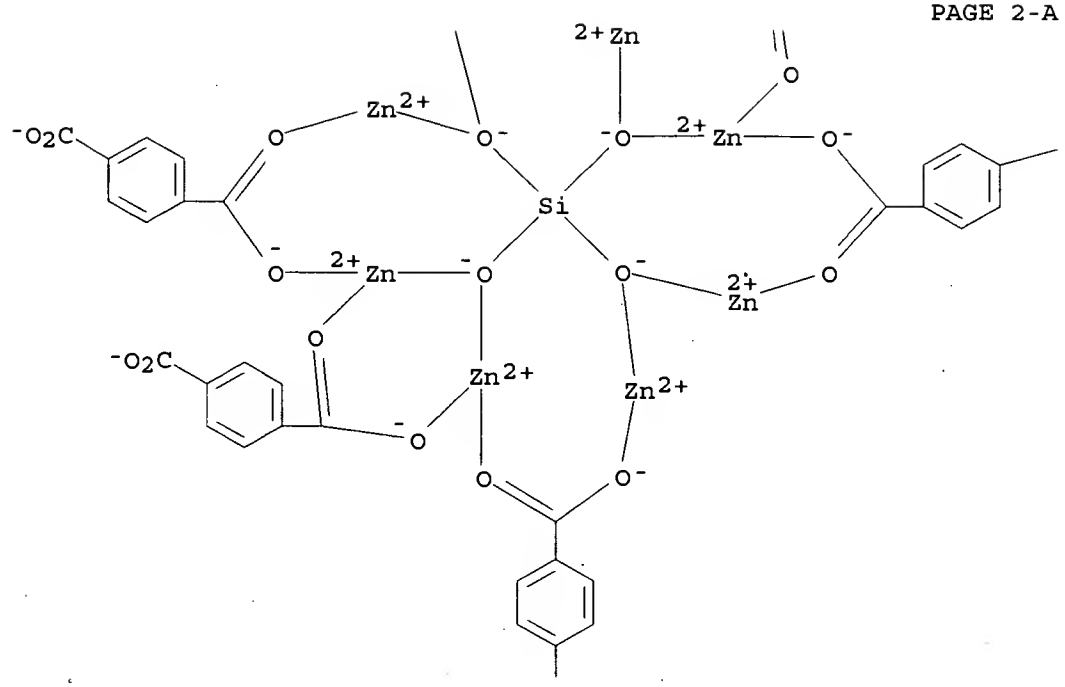

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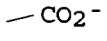


PAGE 3-A

CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 73, 75

ST zinc silicate terephthalate metal org framework complex prepn structure; crystal structure zinc silicate terephthalate metal org framework complex; **fluorescence** zinc silicate terephthalate metal org framework complex; **phosphorescence** zinc silicate terephthalate metal org framework complex; thermal stability zinc silicate terephthalate metal org framework complex

IT Crystal structure
Fluorescence
Hybrid organic-inorganic materials
Molecular structure

KOROMA EIC1700

Phosphorescence
Thermal stability
(hydrothermal prepn., crystal and mol. structure and **fluorescence/phosphorescence** of exceptionally stable zinc silicate terephthalate ([Zn8(SiO4)(C8H4O6)6]n) metal-org. framework complex)

IT **455951-35-6P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(hydrothermal prepn., crystal and mol. structure and **fluorescence/phosphorescence** of exceptionally stable zinc silicate terephthalate ([Zn8(SiO4)(C8H4O6)6]n) metal-org. framework complex)

IT 100-21-0, Terephthalic acid, reactions 6834-92-0, Sodium metasilicate (Na2SiO3)
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; hydrothermal prepn., crystal and mol. structure and **fluorescence/phosphorescence** of exceptionally stable zinc silicate terephthalate ([Zn8(SiO4)(C8H4O6)6]n) metal-org. framework complex)

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 3 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:521063 CAPLUS
DOCUMENT NUMBER: 137:241233
TITLE: Crystal structure and properties of a terbium m-methylbenzoate complex with 1,10-phenanthroline
AUTHOR(S): Wang, Rui Fen; Wang, Shuping; Shi, Shikao; Zhang, Jianjun
CORPORATE SOURCE: Department of Chemistry, Hebei Normal University, Shijiazhuang, 050091, Peop. Rep. China
SOURCE: Journal of Coordination Chemistry (2002), 55(2), 215-223
CODEN: JCCMBQ; ISSN: 0095-8972
PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:241233

AB [Tb(m-MBA)3phen].cntdot.H2O was obtained from EtOH soln., where m-MBA = m-methylbenzoate and phen = 1, 10-phenanthroline, and its structure detd. by x-ray diffraction methods. The unit cell contains binuclear mols. of [Tb(m-MBA)3phen].cntdot.H2O. Each Tb3+ ion is eight-coordinated to one 1,10-phenanthroline mol., one bidentate **carboxylate** group and four bridging **carboxylate** groups, for which the **carboxylate** groups are bonded to the Tb ion in two modes: chelating bidentate and bridging bidentate. Excitation and luminescence data obsd. at room temp. show that the complex emits very intense green fluorescence under UV light. Results of thermal anal. indicate that the complex is quite stable to heat.

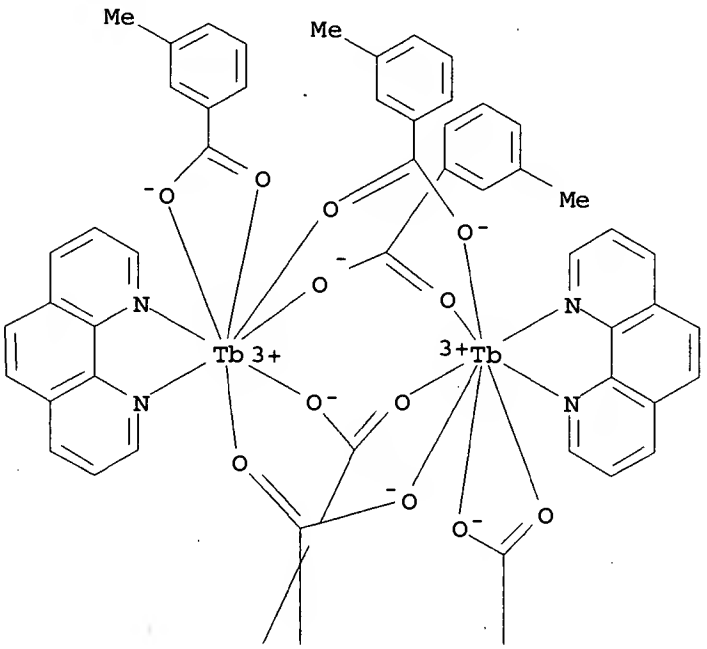
IT **459791-01-6P**
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC

(Process)
(prepn. and crystal structure and **fluorescence** and luminescence and thermal decompn.)

RN 459791-01-6 CAPLUS

CN Terbium, tetrakis[.mu.-(3-methylbenzoato-.kappa.O:.kappa.O')]bis(3-methylbenzoato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di-, monohydrate (9CI) (CA INDEX NAME)

PAGE 1-A



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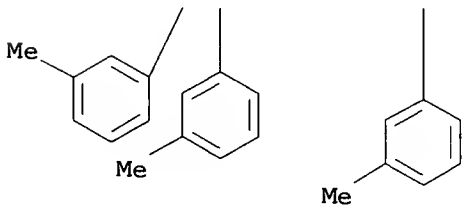


● H_2O

CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 75

ST terbium methylbenzoate phenanthroline complex prepn structure

KOROMA EIC1700

luminescence; crystal structure terbium methylbenzoate phenanthroline complex; fluorescence terbium methylbenzoate phenanthroline complex; thermal decompn terbium methylbenzoate phenanthroline complex

IT Crystal structure
Fluorescence
Luminescence
Molecular structure
Thermal decomposition
(of terbium methylbenzoate phenanthroline complex)

IT **459791-01-6P**
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(prepn. and crystal structure and **fluorescence** and luminescence and thermal decompn.)

IT 99-04-7, m-Methylbenzoic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for prepn. of terbium methylbenzoate phenanthroline complex)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 4 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:409148 CAPLUS
DOCUMENT NUMBER: 137:13027
TITLE: **Light emitting device**
INVENTOR(S): Seo, Satoshi
PATENT ASSIGNEE(S): Japan
SOURCE: U.S. Pat. Appl. Publ., 46 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002064684	A1	20020530	US 2001-997173	20011130
JP 2002231454	A2	20020816	JP 2001-366998	20011130

PRIORITY APPLN. INFO.: JP 2000-366045 A 20001130
OTHER SOURCE(S): MARPAT 137:13027

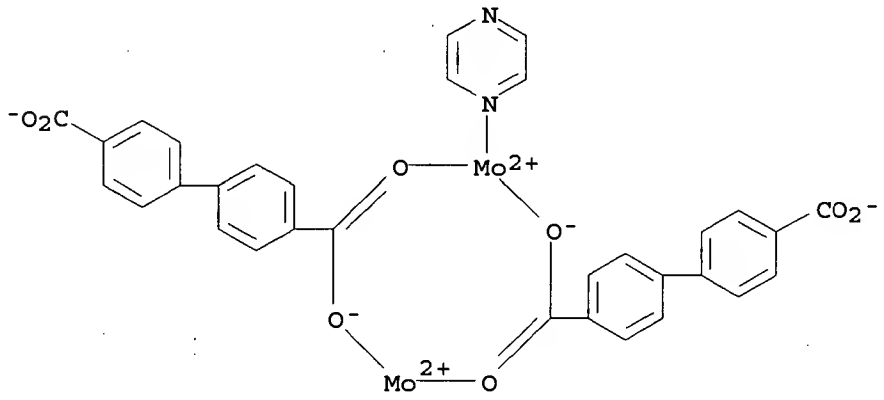
AB **Light-emitting devices** are described which employ an org. **light-emitting** material and a metal complex. The inclusion of the org. **light emitting** material in the positions between the lattices formed by the ligands and metal atoms of the metal complex allows promotion of **phosphorescence** from the org. **light-emitting** material. This allows both **fluorescent** and **phosphorescent** emission from the devices, resulting in **light** emission efficiency which is high relative to conventional devices. Electronic **devices** employing the **light-emitting devices** are also described.

IT **432028-84-7**

RL: DEV (Device component use); USES (Uses)
(polymeric; **light-emitting devices** employing org. **light-emitting** materials in organometallic compd. lattices and their use)

RN 432028-84-7 CAPLUS

CN Molybdenum, bis[.mu.-[[1,1'-biphenyl]-4,4'-dicarboxylato(2-)]](pyrazine-.kappa.N1)di- (9CI) (CA INDEX NAME)



IC ICM H05B033-14

NCL 428690000

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 76

ST **light emitting device** org material organometallic lattice

IT **Electroluminescent devices**
(**light-emitting devices** employing org. **light-emitting** materials in organometallic compd. lattices and their use)

IT Organometallic compounds
RL: DEV (Device component use); USES (Uses)
(**light-emitting devices** employing org. **light-emitting** materials in organometallic compd. lattices and their use)

IT Sulfonic acids, uses
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(polyethylene dioxythiophene doped with; **light-emitting devices** employing org. **light-emitting** materials in organometallic compd. lattices and their use)

IT 290-37-9D, Pyrazine, reaction products with rhodium benzoate 2085-33-8, Tris(8-hydroxyquinolinato)aluminum 18115-70-3, Lithium acetylacetonate, uses 41201-28-9 63355-10-2D, Rhodium(II) benzoate, reaction products with pyrazine 432028-81-4 432028-82-5
RL: DEV (Device component use); USES (Uses)

(**light-emitting devices** employing org. **light-emitting** materials in organometallic compd. lattices and their use)

IT 432028-83-6 **432028-84-7** 432028-85-8
RL: DEV (Device component use); USES (Uses)
(polymeric; **light-emitting devices** employing org. **light-emitting** materials in organometallic compd. lattices and their use)

IT 126213-51-2, Poly(3,4-ethylenedioxythiophene)
RL: DEV (Device component use); USES (Uses)
(sulfonic acid-doped; **light-emitting devices** employing org. **light-emitting** materials in organometallic compd. lattices and their use)

L30 ANSWER 5 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:303756 CAPLUS
DOCUMENT NUMBER: 137:87454
TITLE: A novel photoluminescent and photochromic europium complex
AUTHOR(S): Zheng, Xiangjun; Wan, Yonghong; Jin, Linpei; Lu, Shaozhe
CORPORATE SOURCE: Department of Chemistry, Beijing Normal University, Beijing, 100875, Peop. Rep. China
SOURCE: Chinese Science Bulletin (2002), 47(5), 361-364
CODEN: CSBUEF; ISSN: 1001-6538
PUBLISHER: Science in China Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A ternary Eu complex of 4-aminobutyric acid (ABA) with 1,10-phenanthroline (phen) [Eu2(ABA)4 (phen)4](phen)4(ClO4)6 was synthesized and characterized by x-ray single crystal diffraction. The result shows that 4-aminobutyric acid exists in zwitterion form in the binuclear complex and that the **carboxylates** coordinate with Eu3+ ion in bidentate bridging and tridentate chelating-bridging modes. There are two types of phen mols., one is coordinated and the other is uncoordinated. When excited by YAG: Nd laser with 355 nm light, the title complex can emit strong red fluorescence, and its high-resoln. emission spectrum was recorded at 77 K. The Eu3+ ion site is in low symmetry, which is in agreement with the result of x-ray single crystal diffraction anal. When irradiated with a Hg lamp, the aq. soln. of the title complex can perform photochromism with the color change from colorless to green and the green color can fade away in the dark. The photochromic response time is related to the concn. and pH of the soln., the temp. and the light intensity.

IT **440106-08-1P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn., **fluorescence**, photochromism and crystal structure of)

RN 440106-08-1 CAPLUS
CN Europium(2+), bis[.mu.-(4-aminobutanoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(4-aminobutanoato-.kappa.O:.kappa.O')]tetrakis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di-, diperchlorate, compd. with 1,10-phenanthroline perchlorate (1:4:4) (9CI) (CA INDEX NAME)

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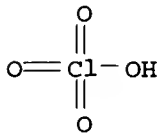
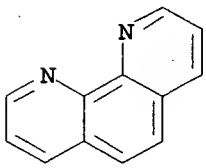
CRN 7601-90-3
CMF Cl H O4



CM 2

CRN 66-71-7
CMF C12 H8 N2



CM 3

CRN 440106-07-0
CMF C64 H64 Eu2 N12 O8 . 2 Cl O4

CM 4

CRN 440106-06-9
CMF C64 H64 Eu2 N12 O8
CCI CCS

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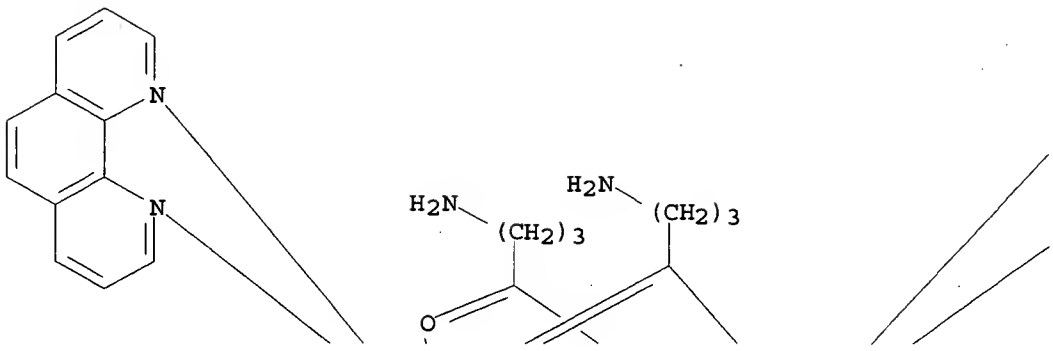

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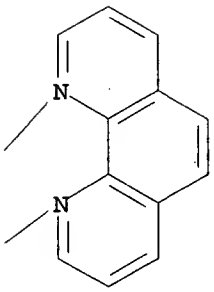

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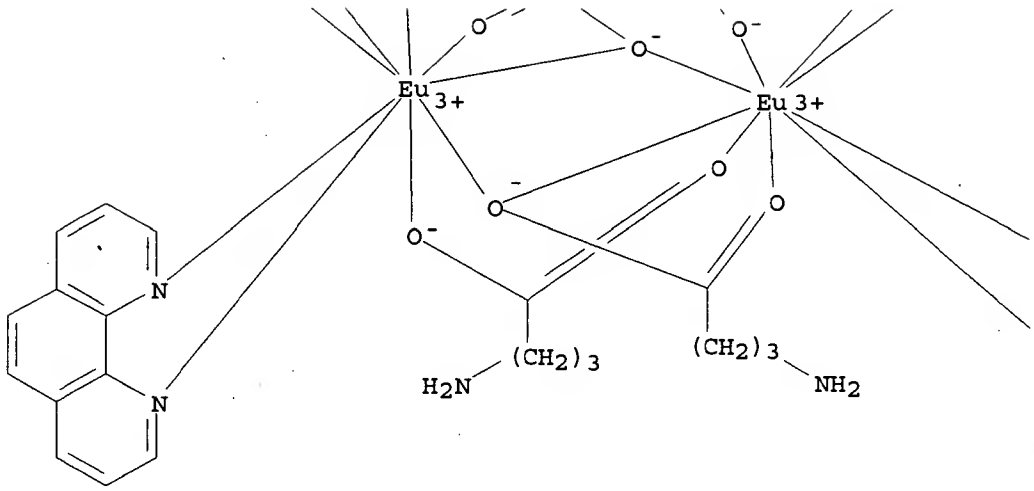

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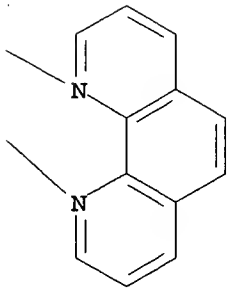
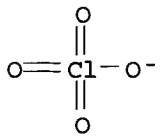


CM 5

CRN 14797-73-0
CMF Cl O4



CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 73, 75
ST crystal structure europium aminobutyric acid phenanthroline dinuclear; europium aminobutyric acid phenanthroline dinuclear prepn; fluorescence europium aminobutyric acid phenanthroline dinuclear; photochromism europium aminobutyrci acid phenanthroline dinuclear; photoluminescent europium aminobutyric acid phenanthroline dinuclear; zwitterion europium aminobutyric acid phenanthroline dinuclear
IT Zwitterions
(of aminobutyric acid in europium aminobutyrato phenanthroline dinuclear complex)
IT Crystal structure
Fluorescence
Molecular structure
Photochromism
(of europium aminobutyrato phenanthroline dinuclear complex)
IT 56-12-2, 4-Aminobutyric acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(for prepn. of europium aminobutyrato phenanthroline dinuclear complex)
IT **440106-08-1P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn., **fluorescence**, photochromism and crystal structure of)
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 6 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:134554 CAPLUS
DOCUMENT NUMBER: 136:334272
TITLE: Synthesis, Structure, and **Fluorescence** of the Novel Cadmium(II)-Trimesate Coordination Polymers with Different Coordination Architectures
AUTHOR(S): Dai, Jing-Cao; Wu, Xin-Tao; Fu, Zhi-Yong; Cui, Chuan-Peng; Hu, Sheng-Min; Du, Wen-Xin; Wu, Li-Ming; Zhang, Han-Hui; Sun, Rui-Qing
CORPORATE SOURCE: State Key Laboratory of Structural Chemistry, Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences, Fuzhou, Fujian, 350002, Peop. Rep. China
SOURCE: Inorganic Chemistry (2002), 41(6), 1391-1396
CODEN: INOCAJ; ISSN: 0020-1669
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

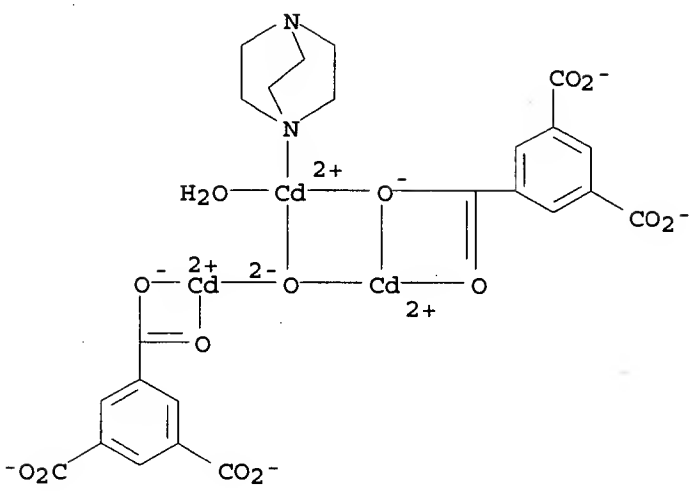
KOROMA EIC1700

AB Three novel complexes, Cd3tma2.cntdot.13H2O (1), Cd3tma2.cntdot.dabco.cntdot.2H2O (2), and Cd3Htma3.cntdot.8H2O (3) (tma = trimesate, dabco = 1,4-diazabicyclo[2.2.2]octane), of Cd(II)-trimesate coordination polymers were obtained from hydrothermal reaction. 1 (C18H32O25Cd3) crystallizes in the monoclinic space group C2/c [a = 18.985(2) .ANG., b 7.3872(6), c 20.432(2) .ANG., .beta. 97.1660(10).degree., and Z = 4]. 2 (C24H22N2O14Cd3) crystallizes in the monoclinic P2(1)/c space group [a = 10.1323(2) .ANG., b 19.5669(5), c 13.15880(10) .ANG., .beta. 108.9810(10).degree., and Z = 4]. 3 (C27H28O26Cd3) belongs to the trigonal P31c space group [a = 15.7547(3) .ANG., b 15.7547(3), c 7.93160(10) .ANG., and Z = 2]. 1 (C18H32O25Cd3) crystallizes in the monoclinic space group C2/c [a = 18.985(2), b 7.3872(6), c 20.432(2) .ANG., .beta. 97.1660(10).degree., and Z = 4]; 2 (C24H22N2O14Cd3) crystallizes in the monoclinic P2(1)/c space group [a = 10.1323(2), b 19.5669(5), c 13.15880(10) .ANG., .beta. 108.9810(10).degree., and Z = 4]; 3 (C27H28O26Cd3) belongs to the trigonal P31c space group [a = 15.7547(3), b 15.7547(3), c 7.93160(10) .ANG., and Z = 2]. The Cd(II) centers in the three complexes are bridged by tma ligands in the coordination fashion of unidentate, bridging unidentate, bidentate, chelating bis-bidentate, chelating/bridging bis-bidentate, or chelating/bridging bidentate to form the T-shaped mol. bilayer motif for 1, chicken-wire-like motif for 2, and honeycomb-like porous structure for 3, resp., in which the T-shaped mol. bilayer motif and chicken-wire-like motif are further interlinked in interdigitating or alternating fashion to construct the different coordination architectures. These three complexes exhibit strong **fluorescent** emission bands at 355 nm (.lambda.ex = 220 nm) for 1, 437 nm (.lambda.ex = 365 nm) for 2, and 353 nm (.lambda.ex = 218 nm) for 3 in the solid state at room temp.

IT **414896-65-4P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn., crystal structure and **fluorescence** of cadmium trimesate polymers)

RN 414896-65-4 CAPLUS

CN Cadmate(2-), aquabis[1,3,5-benzenetricarboxylato(3-)-.kappa.O1,.kappa.O1'](1,4-diazabicyclo[2.2.2]octane-.kappa.N1)-.mu.3-oxotri-, dihydrogen (9CI) (CA INDEX NAME)



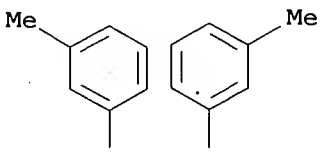
●2 H+

CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 73, 75
ST cadmium trimesate polymer prepn structure; crystal structure cadmium trimesate polymer; **fluorescence** cadmium trimesate polymer
IT Crystal structure
Fluorescence
Molecular structure
(of cadmium trimesate polymers with and without diazabicyclooctane)
IT Coordination compounds
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polymeric; prepn., crystal structure and **fluorescence** of cadmium trimesate polymers with and without diazabicyclooctane)
IT 280-57-9, 1,4-Diazabicyclo[2.2.2]octane
RL: RCT (Reactant); RACT (Reactant or reagent)
(for prepn. of cadmium trimesate dabco polymer)
IT 100-97-0, uses 10028-70-3, Disodium terephthalate
RL: MOA (Modifier or additive use); USES (Uses)
(for prepn. of cadmium trimesate polymer)
IT 554-95-0, 1,3,5-Benzenetricarboxylic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(for prepn. of cadmium trimesate polymers)
IT 414896-64-3P **414896-65-4P** 414896-66-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn., crystal structure and **fluorescence** of cadmium trimesate polymers)
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 7 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:644044 CAPLUS
DOCUMENT NUMBER: 136:256221
TITLE: Synthesis and characterization of quaternary mixed complexes
AUTHOR(S): Xian, Chunying; Zhao, Shuhui; Zhu, Longguan
CORPORATE SOURCE: Chemistry and Chemical Engineering College, Donghua University, Shanghai, 200051, Peop. Rep. China
SOURCE: Huaxue Shijie (2001), 42(7), 342-345
CODEN: HUAKAB; ISSN: 0367-6358
PUBLISHER: Shanghaishi Huaxue Huagong Xuehui
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB Three series of quaternary rare earth complexes [LnL2(NO3)(Phen)]2 (Ln = La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Er, HL = o-, m-, p-CH3C6H4CO2H) were synthesized in EtOH/water soln. system with 8-quinolinol as acidity adjusting agent. The products were characterized by elemental anal., IR, UV, DTA-TG and 1H NMR, and the ESR spectra of three Gd complexes and fluorescence spectra of three Eu complexes were detd.
IT **329898-03-5P 329898-04-6P 403830-74-0P 403830-86-4P 403830-96-6P 403832-29-1P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and **fluorescence**)
RN 329898-03-5 CAPLUS
CN Gadolinium, bis[.mu.-(3-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(3-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

PAGE 1-A



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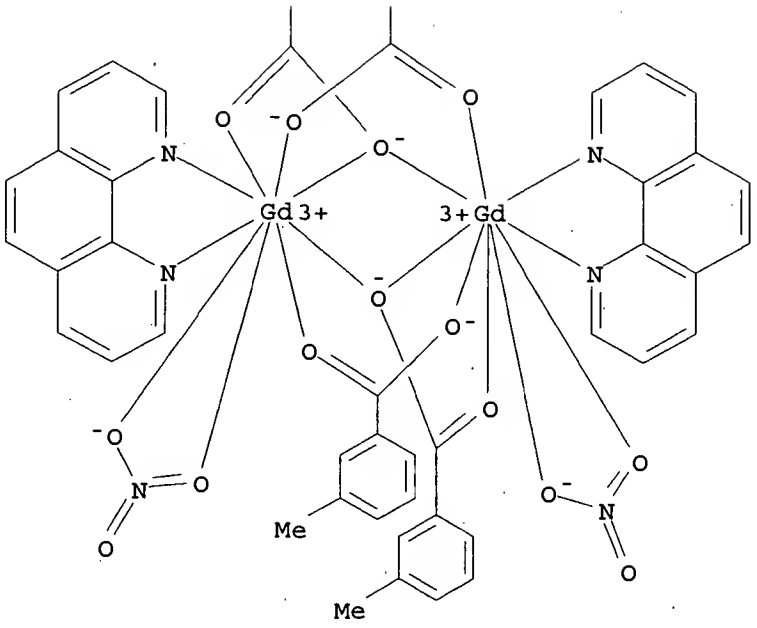

RN 329898-04-6 CAPLUS

CN Gadolinium, bis[.mu.-(4-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(4-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

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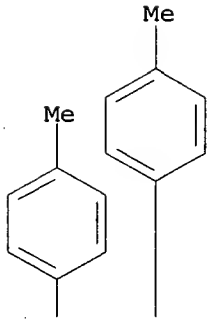

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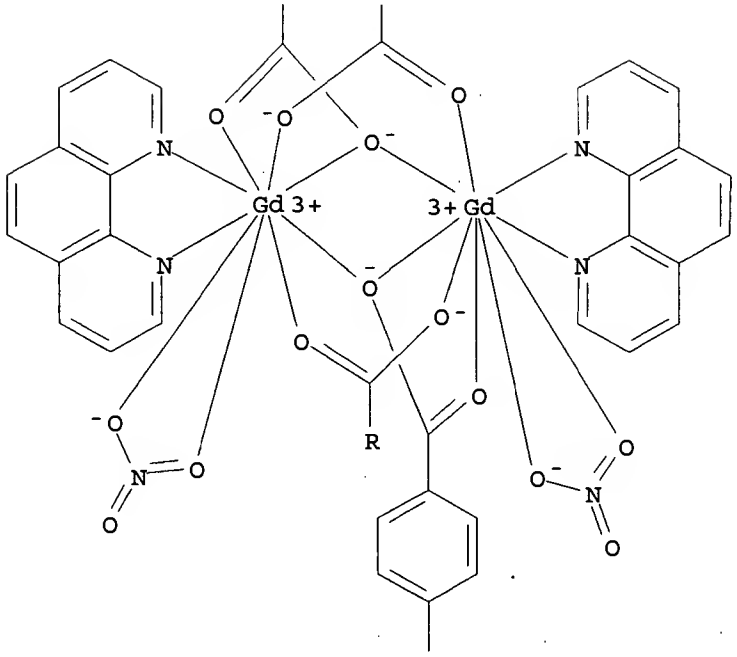

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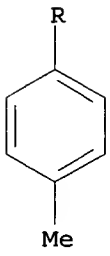

RN 403830-74-0 CAPLUS
CN Europium, bis[.mu.-(4-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(4-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

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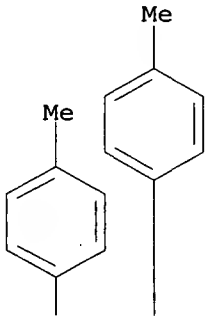

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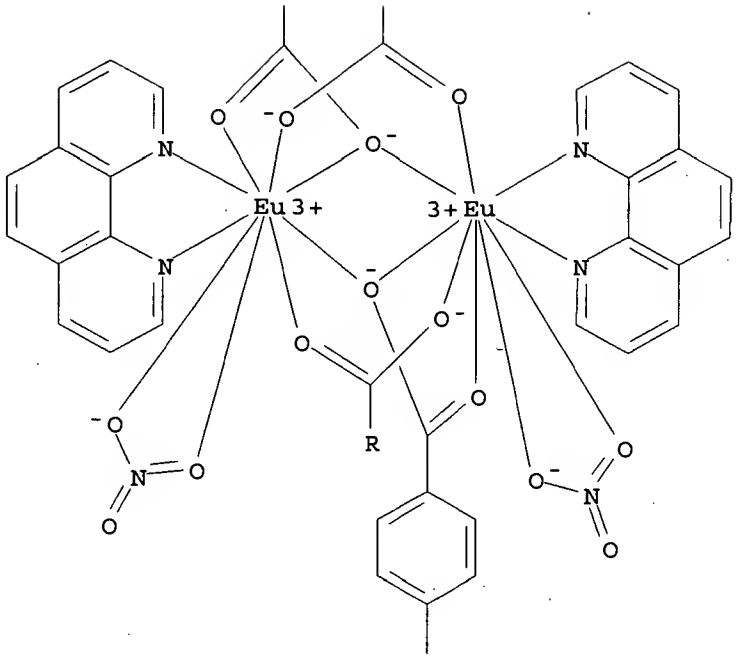

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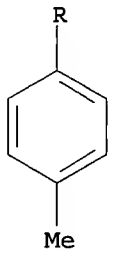

RN 403830-86-4 CAPLUS
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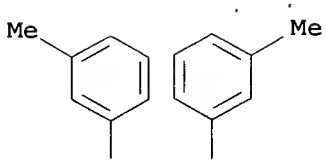
PAGE 1-A



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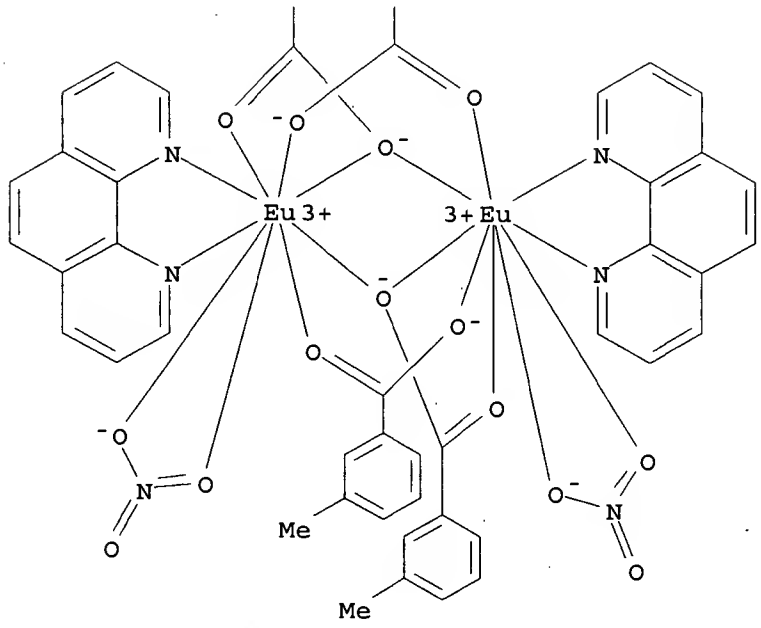
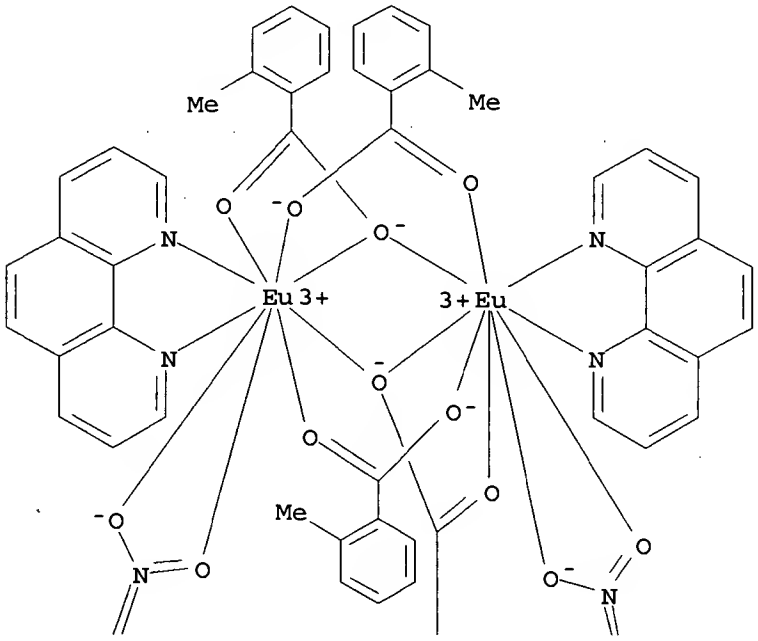


RN 403830-96-6 CAPLUS

KOROMA EIC1700

CN Europium, bis[.mu.-(2-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(2-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

PAGE 1-A



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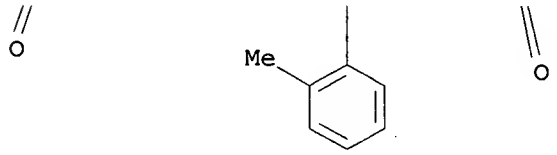
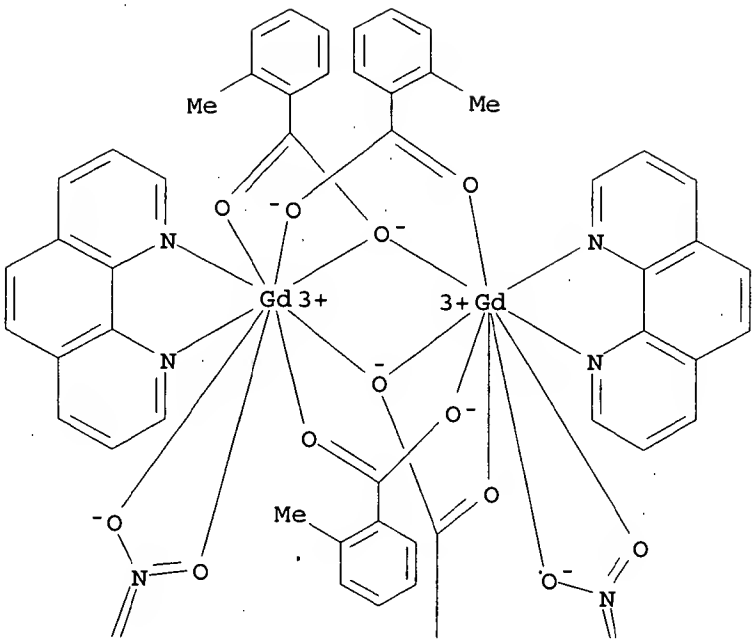


RN 403832-29-1 CAPLUS

CN Gadolinium, bis[.mu.-(2-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(2-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

PAGE 1-A



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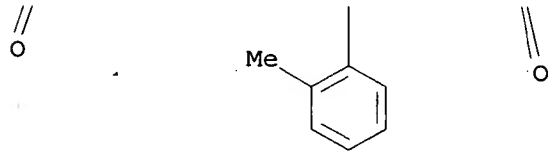

IT **254444-51-4P 403830-68-2P 403830-70-6P**
403830-72-8P 403830-76-2P 403830-78-4P
403830-79-5P 403830-81-9P 403830-83-1P
403830-85-3P 403830-88-6P 403830-89-7P
403830-90-0P 403830-92-2P 403830-94-4P
403830-97-7P 403830-98-8P 403832-28-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 254444-51-4 CAPLUS

CN Cerium, bis[.mu.-(4-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(4-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

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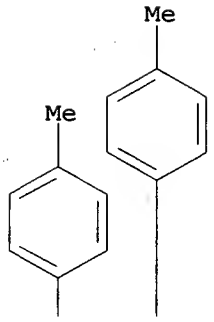

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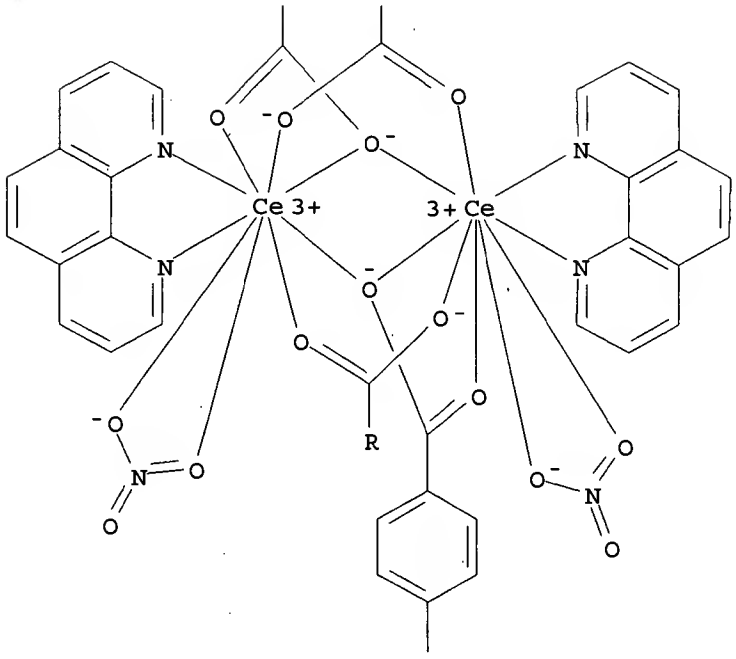

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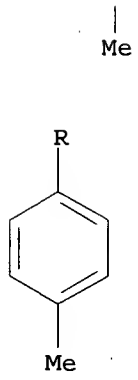

RN 403830-68-2 CAPLUS
CN Lanthanum, bis[.mu.-(4-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(4-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

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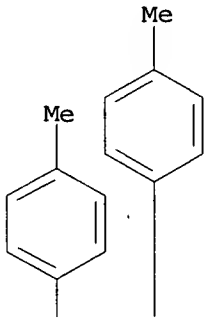

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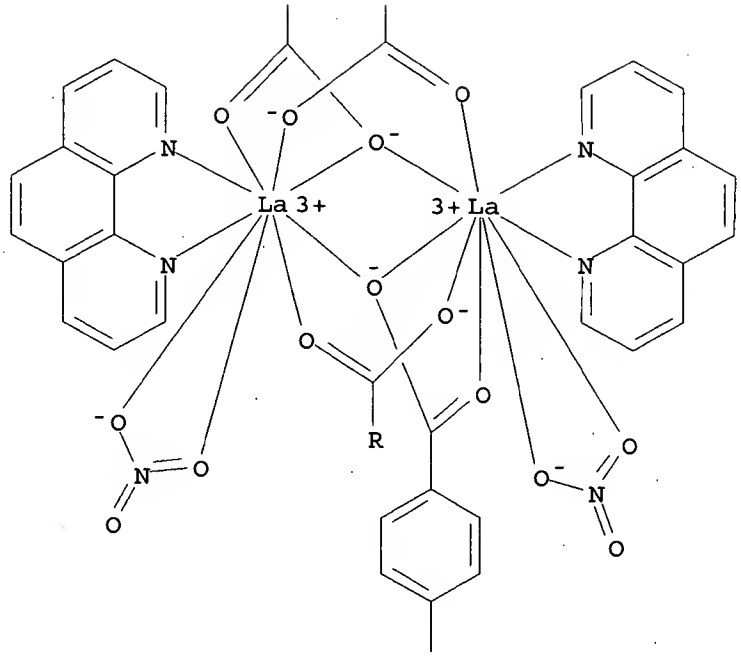

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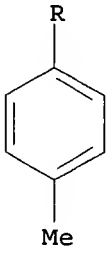

RN 403830-70-6 CAPLUS

CN Praseodymium, bis[.mu.-(4-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(4-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

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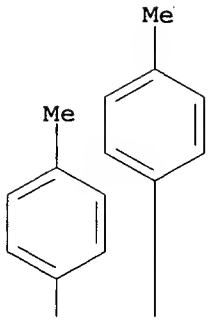

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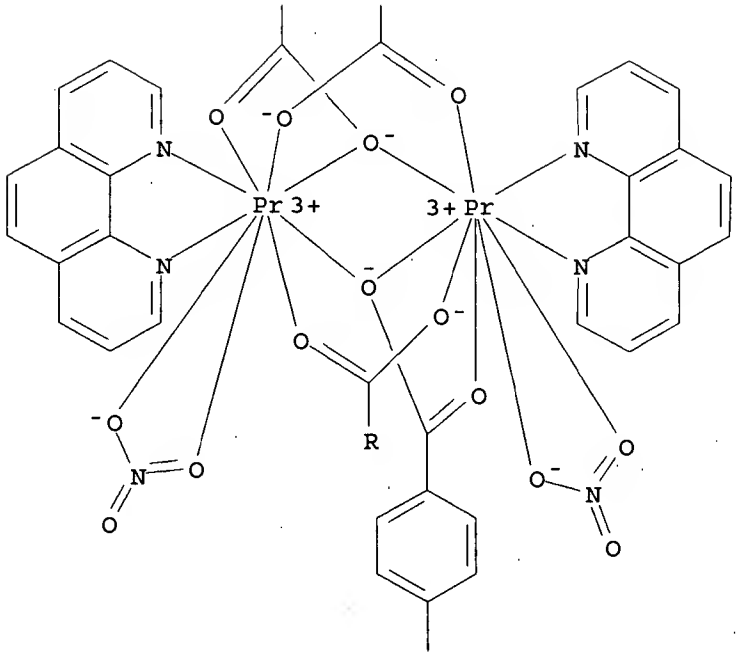

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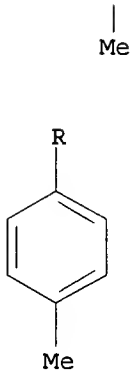

RN 403830-72-8 CAPLUS
CN Neodymium, bis[.mu.-(4-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(4-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

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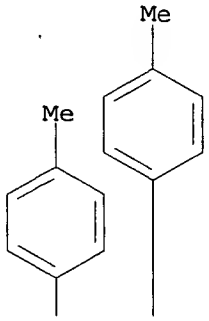

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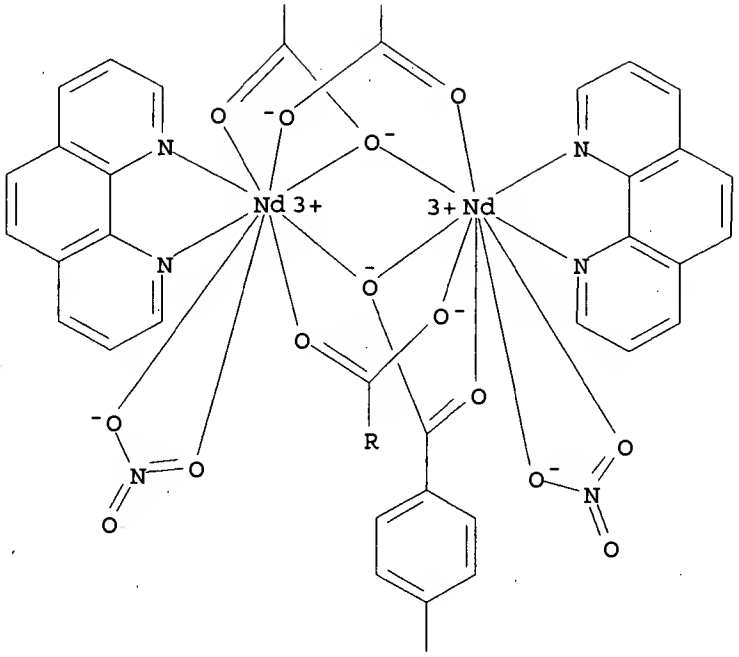

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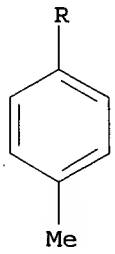

RN 403830-76-2 CAPLUS

CN Terbium, bis[.mu.-(4-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(4-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

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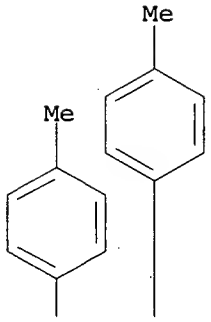

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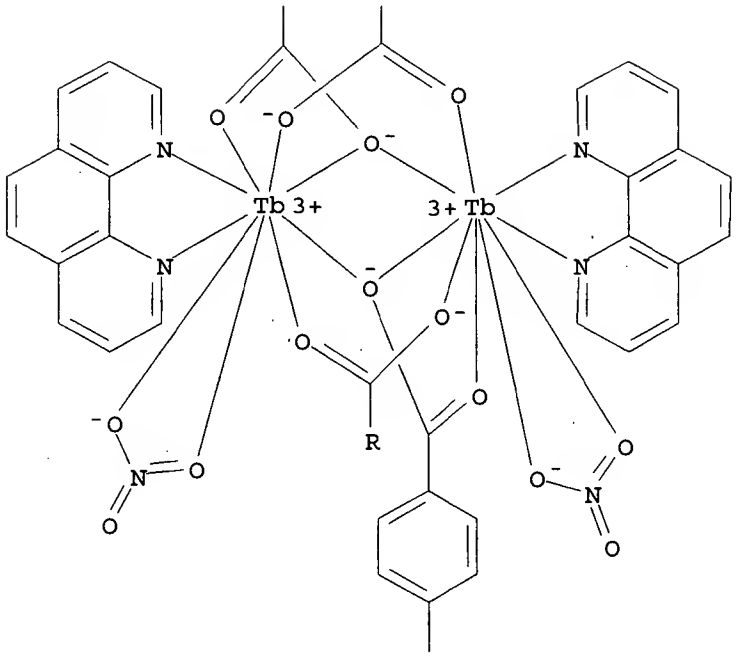

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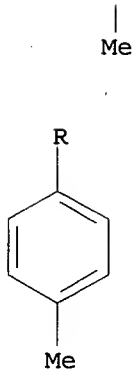

RN 403830-78-4 CAPLUS
CN Erbium, bis[.mu.-(4-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(4-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

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